INFRARED Targets For Testing And Training (IRT3)

Dan Torgler
PMTRASYS

Unclassified

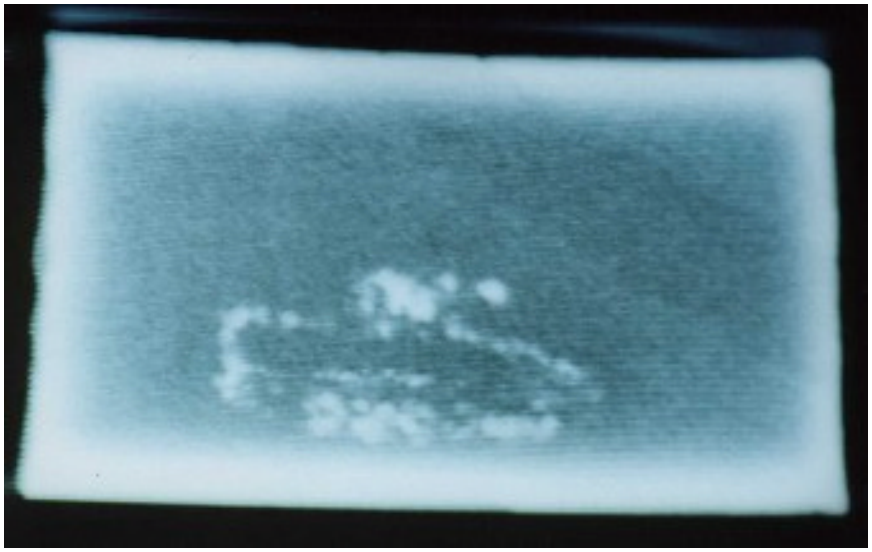
Project Description

Objectives:

Develop an IR projection system to provide realistic range targets for FLIR test and training with scoring capability

Deliverables:

- IR laser projector/screen
- Demonstration
- Final Report



Project Participants:

- PMTRASYS (Orlando, FL)
- NAWCTSD (Orlando, FL)
- University Of Central FL (Orlando, FL)
  - Center For Research & Education in Optics And Lasers
  - Institute For Simulation And Training
- Delta Fountains (Jacksonville, FL)
- Demaria Optics (Santa Clara, CA)
- Evans & Sutherland (Orlando, FL)
- Lighting Systems Design (Orlando, FL)
- Diversified Optical Products (Salem, NH)

Funding: (In $Ks)

FY00	FY01	FY02	Total
300	350	150	800

Operational Concept

- Adapt IR Projection Technology To Provide A Full Range Of IR Military Targets On Reusable, Renewable, Water-Based Projection Screens
  - Test & Training Targets In The 8-12 Micron Band
  - Realistic Simulation Of Actual Targets (Movement, IR Signature, etc.)
- Expose Projection Media Only To Live Fire

Status & Transition Plan

- Produced initial IR image on a waterfall in laboratory
- Developing larger scale testbed
  - Increase size of IR image
- Increasing reflectivity of water
  - Glycerin, Glycol, IR Metallic Reflective Agents (Brass, Zinc), IR Absorbent Materials (Graphite)
- Investigating alternatives for target surfaces
  - Sandpaper, Sand, Mylar
- Transition Plans Under Development
  - National Training Center (NTC)/Night Vision And Electronic Sensors (Ft. Irwin, CA)
  - PM-ITTS (Huntsville, AL)
  - Nellis AFB, NV
  - Air Force Research Laboratory (Wright Patterson AFB, OH)

Summary

- IR Projection Technology Offers Significant Opportunities To The Test And Training Communities
  - Less Costly Than Current Targets
  - Improved Realism
- Initial Demonstrations Have Proven Successful
- Potential Customer Established
- Transition Planning Underway

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